



DELTA STEWARDSHIP COUNCIL

A California State Agency

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RE: Preparation of the Sacramento River Flood Control Project General Reevaluation Report

Dear Mr. Artho:

Thank you for the opportunity to comment on Sacramento River Flood Control Project General Reevaluation Report (GRR). Delta Stewardship Council (Council) staff appreciated the opportunity to speak with you, along with other United States Army Corps of Engineer (USACE) staff, regarding the scope of the GRR during your public outreach meeting in West Sacramento on November 3, 2015. We welcome the USACE's effort to integrate ecosystem restoration measures into its management approach for the flood control system of the Lower Sacramento River Basin, which includes large portions of the Sacramento-San Joaquin Delta.

The Council has a legally enforceable management framework for the Delta and Suisun Marsh called the Delta Plan. The Delta Plan applies a common sense approach based on the best available science to restore habitat, increase the diversity and efficiency of California's water supplies, enhance floodplains, improve the Delta's levee system, and preserve the Delta's agricultural values. In many cases, the Delta Plan calls for balancing competing needs in the Delta (e.g., protecting habitat while reducing flood risk). In addition, the Delta Reform Act requires the Council to develop an investment strategy for project and non-project levees in the Delta to protect people, property and the State's interests (Water Code sections 85305(a) and 85306). Since the upcoming GRR will address both flood risk management and ecosystem restoration objectives, and the federal Energy and Water Development Appropriations Act of 2012 states that the Federal policy for addressing California's water supply and environmental issues related to the Delta should be consistent with the State's coequal goals of water supply reliability and ecosystem restoration, it is essential that both our agencies coordinate closely.

"Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."

– CA Water Code §85054

Comments on the Development of the GRR

- **Adaptive Management.** The USACE is tasked with developing a long-term monitoring plan and an adaptive management strategy for its ecosystem restoration projects, as mandated by the 2007 Water Resources Development Act (WRDA). Similarly, the Delta Reform of 2009 required that the Delta Plan include “a science-based, transparent, and formal adaptive management strategy for ongoing ecosystem restoration and water management decisions” (Water Code section 85308). The Delta Plan outlines a robust framework for how to implement an effective adaptive management strategy (please refer to Delta Plan Appendix C, available at <http://bit.ly/DeltaPlanAppendixC>), which we highly recommend that USACE staff reference when developing the adaptive management strategy for the GRR.
- **Delta Levees Investment Strategy.** The Delta Reform Act of 2009 called on the Council to lead a multi-agency effort to update priorities for State investments in the Delta levee system to reduce the likelihood and consequences of levee failures and protect people, property, and State interests (Water Code section 85305(a)). In addition the Act directs the Council to work in consultation with the Central Valley Flood Protection Board to recommend in the Delta Plan priorities for State investments in levee operation, maintenance and improvements for both project and non-project levees in the Delta (Water Code section 85306). The project team should coordinate with Council staff during the development of the GRR to ensure coordination between these two activities and identify other opportunities to find integrated solutions.
- **Coordination with State Programs and Plans.** At the public scoping meeting, we learned that USACE will be leveraging the efforts of the 2017 Central Valley Flood Protection Plan update. In addition, we encourage the project team to coordinate and integrate with the State’s other ongoing programs and planning activities, including the Delta Plan, the Department of Water Resources (DWR) Urban Flood Risk Reduction Program, the DWR Small Community Flood Risk Reduction Program, the DWR Delta Levees Program, the California Water Action Plan, and the California Natural Resources Agency’s draft report, *Safeguarding California: Implementation Action Plans*.
- **Planning Constraints.** According to the project team, the GRR will focus on flood risk management and ecosystem restoration with potential incidental water supply and recreation opportunities for the lower Sacramento River Basin. These decisions were made based on recommendations of the multi-day agency scoping charrette that involved cost-share partners and federal and State wildlife agencies.

Council staff encourages the project team to utilize system-wide considerations and categories when defining the risks and benefits for the study area. We recommend using the USACE’s existing tools for identifying federal interest, including National Economic Development (NED) analysis, National Ecosystem

Restoration (NER) benefits analysis for tracking the State's goal of restoring the Delta ecosystem, and Other Social Effects (OSE) analysis, which may be especially applicable to evaluating benefits for the Delta's legacy communities and other non-urban areas. Utilizing this full suite of methodologies will allow for a broader range of alternatives to be considered feasible, including locally preferred plans that may not necessarily rank the highest if considered solely under the NED approach. The project team should include recommendations for each of the eliminated alternatives, which may lead to these alternatives being identified as serving the federal interest in the future. We would like to offer our assistance during the process of developing the GRR and joint EIR/EIS to emphasize the needs of the Delta and work with the project team on identifying the most feasible alternatives for the region given the existing planning constraints.

We support the project team's approach to leveraging existing planning efforts. However, according to previous USACE reports (e.g., 2014 USACE Delta Islands and Levees Feasibility Study), the USACE has been constrained in its authority to analyze projects that fall within the scope of concurrent planning processes of other federal agencies, such as the activities that were proposed in the Draft Bay Delta Conservation Plan/California WaterFix. We suggest that the project team identify and formulate alternatives with and without consideration of these ongoing activities as planning conditions. This approach can ensure that the GRR offers greater opportunities for integration among all levels of government for identifying multi-benefit projects to leverage current and future funding.

- **Coordinate with Ongoing Yolo Bypass Planning Efforts.** The United States Bureau of Reclamation, in coordination with DWR and the California Natural Resources Agency, is currently developing a suite of projects within the Yolo Bypass. These projects will create seasonal floodplain habitat and improve adult fish passage in order to fulfill requirements under the 2009 National Marine Fisheries Service (NMFS) Biological Opinion. Preliminary proposals under this planning effort include notching the Fremont Weir to facilitate more frequent inundation of the Yolo Bypass at a wider range of Sacramento River flow stages. In addition, DWR, Yolo County, and the Sacramento Area Flood Control Agency (SAFCA) are currently evaluating options to widen the Yolo Bypass to increase its flood conveyance capacity. We encourage USACE staff to develop alternatives for the GRR which leverage and support these Yolo Bypass planning efforts.
- **Model limitations.** We understand that the project team likely has to rely upon USACE pre-certified or pre-approved models for all planning studies. However, there may be more advanced and/or more recent models available that may not be presently certified according to the current USACE guidelines (Engineer Circular 1105-2-412: Assuring the Quality of Planning Models). For example, we encourage the USACE to consider using the peer-reviewed Delta Regional Ecosystem Restoration Implementation Plan (DRERIP) conceptual models

which used a driver-linkage-outcome approach to model the complex interacting components of the Delta ecosystem (These models are available online at http://www.dfg.ca.gov/erp/current_models.asp). The Interagency Ecological Program (IEP), a cooperative program between nine state and federal agencies including USACE, recently released an updated conceptual model for Delta smelt biology, which we suggest the project team utilize. (The report, a product of the IEP's Management, Analysis, and Synthesis Team [MAST], is available at http://www.water.ca.gov/iep/docs/Delta_Smelt_MAST_Synthesis_Report_January%202015.pdf.)

- **Improve Recreational Opportunities.** The Delta Plan contains several recommendations promoting recreational opportunities for the public. These opportunities include constructing visitor facilities on and providing improved access to public lands and habitat restoration sites. In addition, we encourage you on public lands to promote opportunities, where feasible, for bank fishing, hunting, levee-top trails, and environmental education.

California State Parks has developed proposals for increasing public access to areas within the upper Yolo Bypass and the Delta that we hope USACE will consider as it develops the Sacramento River GRR. One of these projects includes establishing a several mile long contiguous recreational corridor along the top of the Sacramento River levee in Elkhorn Basin, so as to promote access for anglers to fish the mainstem Sacramento River and to provide easily accessible trails for bicyclists and hikers. A second State Parks proposal we encourage USACE to consider is modifying the levee along the east side of the Toe Drain in the Yolo Bypass to improve access for anglers and other members of the public. Currently this levee is very steep, precluding its use by many members of the public; flattening out this levee would greatly open up public access along the Tule Canal to the West Sacramento community and beyond.

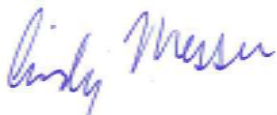
- **Protection of Salmon Corridors.** We believe that it is particularly important for all alternatives of the Sacramento River GRR to protect and maintain channel margin habitat along important salmonid migratory corridors, including the Sacramento River mainstem and its major distributaries of Sutter and Steamboat Sloughs. All four races (i.e., fall-run, late fall-run, winter-run, spring-run) of Central Valley Chinook salmon, as well as Central Valley steelhead, migrate along the lower Sacramento River and channel margin habitat is particularly important rearing habitat and refugia for juvenile salmonids. We recommend that, to the maximum extent feasible, any impacts to channel margin habitat along important salmonid migration corridors resulting from flood risk management measures be mitigated on site. In the event that off-site mitigation is necessary, we recommend that any off-site mitigation occurs in close proximity and along the same waterway where impacts would occur (e.g., impacts to habitat along Steamboat Slough should be mitigated along Steamboat Slough) to demonstrate that the mitigation is restoring equivalent, in-kind habitat.

Council staff recently released a public draft of its Levee-Related Habitat Review (LRHR), which assessed the effectiveness of different habitat improvement options associated with levee projects in the Delta and nearby upstream areas to benefit native species (This draft report is currently available at <http://bit.ly/PublicDraftLRHR>). One of the findings of the LRHR is that vegetated benches constructed along levee repair sites as mitigation can provide similar habitat benefits for rearing salmon as compared to naturally vegetated. This finding was based on post-construction monitoring of the multitude of mid-2000's Delta emergency levee repairs implemented by USACE and DWR. We recommend that USACE review the LRHR to get insights into recommended approaches for integrating habitat features that benefit salmon and other native species into Delta levee projects.

Final Remarks

Council staff welcomes the opportunity to coordinate with the project team during the development of the GRR. If you have questions or would like to discuss the comments presented here, please feel free to contact my staff Daniel Huang at Daniel.Huang@deltacouncil.ca.gov for questions regarding the ecosystem restoration and Delta Plan consistency or You Chen (Tim) Chao (916-445-0143) at YouChen.Chao@deltacouncil.ca.gov for questions regarding flood risk reduction.

Sincerely,



Cindy Messer
Deputy Executive Officer
Delta Stewardship Council

cc Shelly Amrhein, Central Valley Flood Protection Board
Kris Tjernell, California Natural Resources Agency